

Mineral Industry Surveys

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TUNGSTEN IN AUGUST 2011

Total U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was slightly lower during January through August 2011 than net production during the same period in 2010. Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and other tungsten materials during January through August 2011 was 14% higher than consumption during the same period in 2010. These materials were used to make alloys, cemented carbides, mill products, and other products, such as catalysts and pigments.

Data for U.S. imports and exports of tungsten for January through July 2011 and full year 2010 totals by material are published in this issue.

Prices

Selected prices from Metal Bulletin for August 2011 are listed below. U.S. ammonium paratungstate prices in dollars per

metric ton unit were converted from short-ton-unit prices and rounded to the nearest dollar. Prices for tungsten ore concentrates represent combined prices for wolframite and scheelite concentrates with a minimum tungsten trioxide (WO₃) content of 65%. Concentrate prices in dollars per short ton unit were converted from metric-ton-unit prices and rounded to the nearest dollar.

Ammonium paratungstate, U.S. free market:

Low—\$336/metric ton unit WO₃ (\$305/short ton unit WO₃)
High—\$341/metric ton unit WO₃ (\$309/short ton unit WO₃)

Concentrates:

Low—\$140/metric ton unit WO₃ (\$127/short ton unit WO₃)
High—\$160/metric ton unit WO₃ (\$145/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS¹

(Metric tons, tungsten content)

Period	Concentrate				Intermediate products				
	Reported consumption	Imports for consumption	Stocks, end of period		Reported scrap consumption	Net production ⁴	Reported consumption ⁵	Stocks, end of period	
			Industry ²	U.S. Government ³				Industry ⁶	U.S. Government ³
2010:									
August	(7)	366	W	17,000	(7)	788	935	704	169
September	(7)	172	W	17,000	506	752	898	762	171
October	(7)	246	W	17,000	366	728	854	828	171
November	(7)	236	W	17,000	(7)	700	865	804	171
December	(7)	214	W	17,000	(7)	680	876	669	171
January–December	4,840	2,740	W	17,000	5,800	8,310	10,800	669	171
2011:									
January	W	332	W	17,000	(8)	646	994	761	171
February	W	276	W	17,000	(8)	779	992	804	171
March	W	388	W	17,000	(8)	774	998	683	171
April	W	283	W	17,000	(8)	732	1,080	599	171
May	W	469	W	15,900	690	718	1,050	593	171
June	W	259	W	15,900	1,130	735	1,280	637	171
July	W	432	W	15,900	629	580	966	673	171
August	W	277	W	15,800	532	475	950	643	160
January–August	W	2,720	W	15,800	6,360	5,440	8,310	643	160

W Withheld to avoid disclosing company proprietary data.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Reported by consumers.

³Data from the Defense Logistics Agency, DLA Strategic Materials. Data are uncommitted material only.

⁴Net production of tungsten metal powder and tungsten carbide powder.

⁵Includes estimates and scrap.

⁶Data for tungsten metal powder and tungsten carbide powder reported by producers.

⁷Withheld to avoid disclosing company proprietary data; included in "January–December."

⁸Withheld to avoid disclosing company proprietary data; included in "January–August."

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH¹

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period ²
2010:			
August	W	(3)	W
September	W	1,010	122
October	W	848	112
November	W	(3)	W
December	W	(3)	62
January–December	W	10,300	62
2011:			
January	W	W	W
February	W	W	W
March	W	W	W
April	W	W	W
May	W	841	W
June	W	895	W
July	W	W	W
August	W	W	W
January–August	W	W	W

W Withheld to avoid disclosing company proprietary data.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Producers and consumers.

³Withheld to avoid disclosing company proprietary data; included in "January–December."

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS¹

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2010	2011			2010	2011	
		July	August	January–August ⁴		July	August
Metal powder	4,100	202	170	2,370	341	331	327
Tungsten carbide powder	4,210	378	305	3,070	328	342	316
Total	8,310	580	475	5,440	669	673	643

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Receipts plus gross production less quantity used to make other products in table.

³Data for cast and crystalline tungsten carbide powder and tungsten chemicals are withheld to avoid disclosing company proprietary data; not included in "Total."

⁴May include revisions to previously published data.

TABLE 4
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE^{1, 2, 3}

(Metric tons, tungsten content)

End use	2011		
	July	August	January–August ⁴
Steels	6	6	47
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁵	W	W	W
Cemented carbides ⁶	576	578	4,610
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	384	366	3,650
Total	966	950	8,310

W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Does not include materials used in making primary tungsten products.

³Includes estimates.

⁴May include revisions to previously published data.

⁵Includes welding and hard-facing rods and materials, wear- and corrosion-resistant alloys, and nonferrous alloys.

⁶Includes diamond tool matrices, cemented and sintered carbides, and cast carbide dies or parts.

TABLE 5
U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS¹

(Metric tons, tungsten content)

Period	Ferro- tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials ²	Total
Consumption:						
2010:						
August	10	W	492	W	6	935
September	10	W	491	W	6	898
October	10	W	493	W	6	854
November	9	W	493	W	6	865
December	10	W	491	W	6	876
January–December	119	W	5,890	W	75	10,800
2011:						
January	10	W	569	W	6	994
February	10	W	567	W	6	992
March	10	W	570	W	6	998
April	10	W	565	W	6	1,080
May	10	W	571	W	6	1,050
June	10	W	567	W	6	1,280
July	10	W	568	W	6	966
August	10	W	570	W	6	950
January–August	79	W	4,550	W	49	8,310
Stocks:						
2010:						
August	22	51	413	66	10	562
September	22	50	413	56	10	552
October	23	51	413	56	10	553
November	23	52	413	60	10	558
December	22	54	413	61	10	561
2011:						
January	22	51	413	67	10	562
February	22	52	413	63	10	560
March	22	50	414	54	10	549
April	22	46	413	61	10	552
May	22	43	413	65	10	553
June	22	41	413	70	10	556
July	21	40	413	67	10	551
August	22	37	413	63	10	546

W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Includes estimates.

²Includes tungsten chemicals.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of origin	Ores and concentrates	Ammonium tungstates	Ferrotungsten	Metal powder	Tungsten carbide powder	Other ²	Total	Total, year to date
2010	2,740	2,510	357	1,340	1,610	2,430	11,000	XX
2011:								
May	469	372	31	158	173	236	1,440	5,400
June	259 ³	209	16	97	109	226	916	6,320
July:								
Austria	--	--	--	--	10	12	22	96
Belgium	--	--	--	--	6	--	6	19
Bolivia	81	--	--	--	--	--	81	478
Brazil	--	--	--	--	--	(3)	(3)	11
Canada	66	--	--	26	3	(3)	95	319
China	--	88	--	30	59	182	359	3,230
Czech Republic	--	--	--	--	--	(3)	(3)	21
France	--	--	--	--	--	1	1	10
Germany	--	18	--	21	24	4	66	352
Hong Kong	--	--	--	3	--	--	3	15
Hungary	--	--	--	--	--	(3)	(3)	4
India	--	--	--	--	--	4	4	18
Israel	--	--	--	11	4	(3)	15	170
Japan	--	--	--	3	--	4	7	133
Korea, Republic of	--	--	--	38	4	--	42	242
Luxembourg	--	--	--	--	--	--	--	4
Mexico	3	--	--	--	--	--	3	6
Mongolia	--	--	--	--	--	--	--	230
Peru	27	--	--	--	--	--	27	255
Portugal	21	--	--	--	--	--	21	312
Russia	--	--	--	--	--	1	1	33
Rwanda	--	--	--	--	--	--	--	11
Singapore	--	--	--	--	--	1	1	11
Spain	49	--	--	--	--	--	49	284
Sweden	--	--	--	--	--	(3)	(3)	7
Thailand	13	--	--	--	--	--	13	63
Uganda	10	--	--	--	--	--	10	20
United Kingdom	--	--	--	(3)	(3)	1	1	24
Vietnam	163	--	8	--	16	21	207	968
Other	--	--	--	--	--	(3)	(3)	1
Total	433	106	8	132	125	231	1,030	7,350
January–July	2,440	1,330	188	824	978	1,590	7,350	XX

¹Revised. XX Not applicable. -- Zero.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Includes other unwrought tungsten, wrought tungsten, calcium and other tungstates, tungsten oxides, tungsten chlorides, other tungsten compounds ash and residues containing mainly tungsten, and other mixtures of inorganic compounds containing tungsten. Tungsten content estimated in part.

³Less than ½ unit.

Note: Imports of waste and scrap in July 2011 totaled 155 metric tons, tungsten content, to give a year-to-date total of 815 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of destination	Ores and concentrates ²	Ammonium tungstates	Metal powder ²	Tungsten carbide powder	Other ³	Total	Total, year to date
2010	276	538	803	1,220	875	3,710	XX
2011:							
May	2	55	66	112	110	344	1,720
June	12	56	110	107	67	352	2,070
July:							
Australia	--	--	(4)	5	--	5	29
Austria	--	--	--	10	--	10	162
Belgium	--	--	--	--	(4)	(4)	126
Brazil	2	--	1	--	--	3	45
Canada	--	--	10	8	64	82	373
Chile	--	--	1	(4)	--	1	5
China	--	--	5	1	1	7	54
Costa Rica	--	--	--	--	(4)	(4)	8
Czech Republic	--	--	--	(4)	2	3	15
France	--	--	--	(4)	8	8	54
Germany	--	94	14	27	4	139	631
Hong Kong	--	--	--	(4)	(4)	(4)	9
Hungary	--	29	--	--	3	33	34
India	--	2	1	2	1	6	26
Indonesia	--	--	(4)	--	(4)	(4)	12
Israel	--	--	(4)	3	(4)	4	18
Italy	--	--	--	2	(4)	2	7
Japan	--	12	1	1	8	23	140
Korea, Republic of	--	--	2	(4)	(4)	3	11
Malaysia	(4)	--	(4)	--	--	1	8
Mexico	--	3	1	1	8	13	85
Netherlands	--	--	--	--	--	--	15
Peru	--	--	(4)	1	(4)	1	5
Philippines	--	--	--	--	12	12	12
Saudi Arabia	--	--	1	(4)	--	1	80
Singapore	--	--	2	(4)	3	5	38
South Africa	--	--	2	1	--	3	21
Sweden	--	--	--	1	--	1	5
Switzerland	--	33	1	--	--	35	141
Taiwan	--	--	2	3	(4)	5	55
Thailand	--	--	--	1	--	1	4
Turkey	--	--	4	(4)	--	4	11
United Kingdom	--	--	(4)	42	5	47	257
Venezuela	--	--	--	--	(4)	(4)	11
Vietnam	2	--	--	--	--	2	3
Other	--	--	(4)	1	(4)	2	21
Total	4	174	49	113	122	461	2,530
January–July	31	569	413	750	767	2,530	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Tungsten content estimated from reported gross weight.

³Includes unwrought tungsten, including bars and rods obtained simply by sintering, wrought tungsten, ferrotungsten, and other tungstates. Tungsten content estimated in part.

⁴Less than ½ unit.

Note: Estimated exports of waste and scrap in July 2011 totaled 371 metric tons, tungsten content, to give a year-to-date total of 1,369 metric tons, tungsten content.

Source: U.S. Census Bureau.